Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-12. (Cancelled)

13. (Previously Presented) A semiconductor structure comprising:

a semiconductor substrate;

a first trench extending in a first direction, the first trench having walls;

a second trench extending in a second direction, the second trench having walls;

a first conducting layer positioned over the walls of the first and the second trenches at selected locations;

a first beam positioned within the first trench, the first beam being rigidly connected at a first portion thereof to the substrate and being movable at a second portion thereof, the second portion being spaced from the walls of the first trench by a selected distance; and

a second beam positioned within the second trench, the second beam being rigidly connected at a first portion thereof to the substrate and being movable at a second portion thereof, the second portion being spaced from the walls of the second trench by a selected distance.

14. (Previously Presented) The semiconductor structure of claim 13 wherein the length of the first beam is different from the length of the second beam.

15. (Previously Presented) The semiconductor structure of claim 13 wherein the width of the first beam is different from the width of the second beam.

16. (Previously Presented) The semiconductor structure of claim 13 wherein the width of the first trench is different from the width of the second trench.

17. (Previously Presented) The semiconductor structure of claim 13 wherein the thickness of the first beam is different from the thickness of the second beam.

18. (Previously Presented) The semiconductor structure of claim 13 wherein the first direction is parallel to the second direction.

19. (Previously Presented) The semiconductor structure of claim 13 wherein the first direction is perpendicular to the second direction.

20. (Previously Presented) The semiconductor structure of claim 13 wherein the first direction and the second direction are in an arrangement so that the first trench and the second trench have a common radius from a common point.

21. (Previously Presented) The semiconductor structure of claim 20 wherein the first beam is perpendicular to a first line extending from the center of a circle and the second beam is perpendicular to a second line extending from the center of the same circle.

22. (Previously Presented) The semiconductor structure of claim 20 wherein the first beam is parallel to and on a first line extending from the center of a circle and the second beam is parallel to and on a second line extending from the center of the same circle.

23. (Previously Presented) The semiconductor structure of claim 13, further comprising a first dielectric layer between the first trench and the first conducting layer, and between the second trench and the first conducting layer.

24. (Previously Presented) The semiconductor structure of claim 13, further comprising a first remaining sacrificial layer between the first portion of the first beam and the first conducting layer, and between the first portion of the second beam and the first conducting layer.

25. (Previously Presented) An integrated circuit on a semiconductor substrate comprising:

a sensor including:

a trench extending from a first surface into the substrate, the trench having walls,

a first conducting layer positioned over the walls of the trench at selected locations, and

a beam positioned within the trench, the beam being connected at a first portion thereof to the substrate and being movable at a second portion thereof, the second portion being spaced from the walls by a selected distance; and

a semiconductor circuit on the substrate having a first node coupled to the first conducting layer and a second node coupled to the beam layer, the semiconductor circuit configured to detect electrical contact between the beam and the trench.

26. (Currently Amended) The integrated circuit of claim ~~23~~ 25 wherein the sensor further comprises a first dielectric layer between the trench and the first conducting layer.

27. (Currently Amended) The integrated circuit of claim ~~23~~ 25 wherein the sensor further comprises a remaining sacrificial layer between the first portion of the beam and the first conducting layer.

28.-33. (Cancelled)

34. (Previously Presented) A semiconductor structure comprising:

a semiconductor substrate;

a first trench extending in a first direction, the first trench having walls;

a second trench extending in a second direction, perpendicular to the first direction, the second trench having walls;

a first conducting layer positioned over the walls of the first and the second trenches at selected locations;

a first beam positioned within the first trench, the first beam being connected at a first portion thereof to the substrate and being movable at a second portion thereof, the second portion being spaced from the walls of the first trench by a selected distance;

a second beam positioned within the second trench, the second beam being connected at a first portion thereof to the substrate and being movable at a second portion thereof, the second portion being spaced from the walls of the second trench by a selected distance; and

a third beam that is parallel to the surface of the semiconductor substrate having its primary axis of motion perpendicular to the surface of the substrate.

35. (Previously Presented) The semiconductor structure of claim 34 wherein the length of the first beam is the same as the length of the second beam.

36. (Previously Presented) The semiconductor structure of claim 34 wherein the width of the first beam is the same as the width of the second beam.

37. (Previously Presented) The semiconductor structure of claim 34 wherein the width of the first trench is the same as the width of the second trench.

38. (Previously Presented) The semiconductor structure of claim 34 wherein the thickness of the first beam is the same as the thickness of the second beam.

39. (Previously Presented) The semiconductor structure of claim 34 wherein the length of the first beam is the different from the length of the third beam.

40. (Previously Presented) The semiconductor structure of claim 34 wherein the width of the first beam is the different from the width of the third beam.

41. (Previously Presented) The semiconductor structure of claim 34 wherein the thickness of the first beam is the different from the thickness of the third beam.

42. (Previously Presented) The semiconductor structure of claim 34 wherein the third beam is built in a third trench.

43. (Previously Presented) The semiconductor structure of claim 42 wherein the width of the first trench is different from the width of the third trench.

44. (Previously Presented) The semiconductor structure of claim 42 wherein the depth of the first trench is different from the depth of the third trench.

45. (Currently Amended) The semiconductor structure of claim 13 further comprising:

a circuit configured to detect an electrical connection between the first beam and the first conducting layer and between the second beam and the first conducting layer.

46. (Currently Amended) The semiconductor structure of claim 45 wherein the circuit is formed in the semiconductor substrate.

47. (Currently Amended) A beam structure comprising:

a semiconductor substrate;

a trench extending into the semiconductor substrate, the trench having walls;

a first conducting layer positioned over the walls of the trench at selected locations;

a beam positioned within the trench, the beam being connected at a first portion thereof to the substrate and being movable at a second portion thereof, the second portion being spaced from the walls of the trench by a selected distance;

a remaining sacrificial layer between the first portion of the beam and the substrate; and

~~The beam structure of claim 1 further comprising:~~

a circuit configured to detect electrical contact between the second portion of the beam and the first conducting layer.

48.-49 (Cancelled)

50. (Previously Presented) A beam structure comprising:

a semiconductor substrate;

a trench extending in the semiconductor substrate;

a beam positioned within the trench, coupled at a first portion thereof to the substrate and movable at a second portion thereof, with respect to the substrate; and

means for detecting contact between the second portion of the beam and a wall of the trench.

51. (Previously Presented) The structure of claim 50 wherein the detecting means comprises an electrical circuit having a first input coupled to the beam and a second input coupled to the wall of the trench, the electrical circuit configured to detect electrical continuity between the first and second inputs.

52. (Previously Presented) The structure of claim 50 wherein the beam is coupled at a third portion to the substrate, and wherein the second portion is between the first and third portions.

53. (New) A method, comprising:

deflecting a beam positioned within a trench formed in a semiconductor substrate, a first portion of the beam fixed to the substrate and a second portion movable with respect to the substrate; and

detecting contact between the second portion of the beam and a wall of the trench.

54. (New) The method of claim 53 wherein the detecting step comprises detecting an electrical contact between the beam and the wall of the trench.

55. (New) The method of claim 53 wherein the deflecting step comprises:

applying an acceleration force to the substrate so as to deflect the beam to contact the wall of the trench.

56. (New) The method of claim 53 wherein the deflecting step comprises:

applying a temperature variation from a first temperature to a second temperature to the substrate so as to deflect the beam to contact the wall of the trench.